September 26, 2003

Mr. Steve Hill
Air Pollution Control Officer
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109

RE: EPA Review of Three Proposed Refinery Title V/ Major Facility Review Permits: Chevron Products Company (Richmond), Valero Refining Company (Benicia) and Tesoro Refining and Marketing Company (Martinez)

Dear Mr. Hill:

Thank you for the opportunity to review these proposed Bay Area Air Quality Management District ("BAAQMD" or "District") Title V Major Facility Review permits ("Title V permits"). We received these permits on August 12, 2003. We are not objecting to these permits because the District has committed to make a number of specific improvements, and has also committed to following EPA guidelines and regulations to make several applicability determinations once you obtain the necessary information. These commitments were made in the District's September 25, 2003 letter or in earlier conference calls and meetings on September 9th, 10th, and 23rd, and 24th with EPA staff. We have enclosed our comments, which note the District's commitments.

We appreciate the District's cooperation with the EPA during this process, including joint refinery tours and numerous opportunities to discuss the proposed permits and our comments. We believe that these discussions will facilitate the necessary permit corrections to the initial Title V permits. We understand that the District also intends to proposed additional permit revisions in the near future, and we will continue to work cooperatively with the District during these revisions.

We were unable to review the proposed Title V permits for Conoco-Phillips Company and Shell Martinez Refinery due to the short review period. However, we understand that the District will make revisions to these permits that are consistent with the revisions for the other three permits. EPA intends to help the District identify EPA issues that are applicable to the other two permits in the near future. EPA retains the authority to reopen any permit if we determine that changes are necessary to assure compliance with all applicable requirements and the requirements of 40 CFR part 70.

If you have any questions concerning our comments, please contact me at (415) 972-3974, or contact Ed Pike of the Permits Office at (415) 972-3970.

Sincerely,

original signed by

Gerardo C. Rios
Chief, Air Permits Office

Adams, Broadwell, Joseph & Cardozo - Daniel Cardozo, et. al.
California Air Resources Board - Mike Tollstrup
Chevron Products Company - Jim Whiteside
Communities for a Better Environment - Will Rostov
Conoco-Phillips Company - Willie W. C. Chiang
Golden Gate University - Marcie Keever, et al
Shell Martinez Refinery - Aamir Farid
Tesoro Refining and Marketing Company - J. W. Haywood
Valero Refining Company - John U. Roach

Enclosure A:
EPA General Comments
on Proposed Refinery Title V/ Major Facility Review Permits

Federal Enforceability
We appreciate the District's commitment to mark SIP-approved regulations as federally-enforceable throughout the permit. For instance, citations to SIP Regulation 9-1 are inconsistently labeled in the permits and must be corrected to indicate that the rule is federally enforceable.[1] In our comments we have pointed out a few instances, but we are not able to point out each example of where a condition was marked not federally enforceable, but should have been marked "yes" instead.

Flaring:
We understand that the District intends to re-evaluate the permit conditions for flares and impose the correct applicable requirements in the permits. We believe that the revised Statement of Basis for each permit must document the reasons for each applicability determination, including but not limited to NSPS Sub-parts A (including 60.18) and J; 40 CFR part 63 subpart CC; and each of the Reg 8 Rules (Reg 8-2, Reg 8-18, Reg 8-28, etc). To document these determinations, the District must identify what sources are controlled by each flare, the basis for any NSPS or other non-applicability determination, and whether they are used for routine flaring or emergencies and upsets only.

We appreciate the District's commitment to include the monitoring required for each flare to determine compliance with NSPS Subpart J, including fuel H_2S monitors for those flares subject to the fuel H_2S limit. Please also include record-keeping and reporting requirements for those flares subject to NSPS J but exempt from the fuel H_2S limit. We also understand that the District will include opacity monitoring on process flares for compliance with Ringelmann/ opacity Regulations 6-301 & 302 and each of the requirements that apply on a unit-specific basis, and mark all flame monitoring as "continuous" monitoring. Where the necessary Title V monitoring coincides with the District's Regulation 12-11 flare monitoring rule, the District may list Reg 12-11 as the monitoring that will satisfy Title V if it is listed as federally enforceable. For sources that must meet a given control efficiency, the District must include a compliance determination and monitoring method for those requirements.

For thermal oxidizers, the permit evaluations must also contain the applicable requirements. The permits must also require monitoring the flow rate if necessary to determine compliance with residence time requirements. This monitoring is in addition to the temperature

[1]For instance, Rule 9-1-313 and 313.2 limits SOx emissions by reducing H_2S in the fuel gas and must be listed as fed/enforceable. For example, see the Tesoro Coker p.77-8 (both the District and SIP version of 313.2 are listed as not federally enforceable); FCCU p.75 (the District version of this rule is listed as not federally enforceable, and no SIP version is listed), and the SRU.

monitoring that the District already includes.

Please see some source-specific flare comments in our attachments for specific refineries.

General Format Comment
We agree with the District's intention to combine tables IV and VII at the soonest opportunity. We also suggest integrating section VI or at least including page numbers for cross-referencing and including in every initial Title V permit a table of contents (see Chevron permit) that allows the public and agency and refinery staff to find the table IV and VII requirements for a specific type of equipment in every permit. Please include refinery comments in the final District RTC and continue to include a list of permitted equipment (Table II in the permit) and provide documents on the District's Web site. We also encourage the District to include applicable requirements and monitoring for abatement devices in Table VII (see Chevron permit) or any future merged table.

MACT: CAA Section 112(j) Hammer
We appreciate the District's commitment to include the MACT hammer in each permit. For instance, the Tesoro evaluation (p8-9) states that 112(j) applies but the units-specific conditions do not include these requirements, such as table IV for loading operations on pp. 55-63. Please identify the units that are subject to 112(j) and list in the Statement of Basis the tables or the page numbers for these requirements.

MACT: 40 CFR Part 63 Subpart UUU
We understand that a condition will be added to each permit requiring timely compliance with future effective MACT standard 40 CFR Part 63 Subpart UUU, for each unit that is subject. The rule applies if the refinery is a major source of HAPs and includes each catalytic cracking unit (CCU) that regenerates catalyst, each catalytic reforming unit that regenerates catalyst, and each sulfur recovery unit (SRU) and the tail gas treatment unit serving it. The compliance date for existing sources depends on when the refinery must meet 30 ppm for gasoline sulfur content but can not be later than 12/31/2009. In some cases, affected sources must comply within 3 years after 4/11/2002.

Permit Shields
As noted in the Statements of Basis (for example Chevron p.35), the District includes both "non-applicable" requirements as well as "subsumed" requirements in the proposed permit shields. We appreciate the District's agreement to add general language that is included in Chevron Table IX.A to each permit that contains a non-applicability shield. This language states that the shield dissolves if the basis for the shield no longer applies. We agree that the first type of shield may be included as long as the equipment covered by the shield can not be operated in a way that triggers the shielded requirement.

We understand that the District sometimes includes a permit shield from an applicable requirement that may apply if the facility switches from one operating scenario to another. We recommend denying permit shields against conditions that the facility could readily

trigger. For instance, the Valero claus units #1 and #2 are shielded against a 300 ppm emission limit (Reg 9-1-307) that applies if they emit more than 100 lbs sulfur dioxide/day (Table IX A-2 & A-3). Since the District inventory indicates that the facility's unabated emissions would be 4,000-5,000 lbs/day, please remove the permit shield or add the 100 lbs/day limit. The District must add Reg 9-1-307 to Table IV-A1 and A2 along with adequate monitoring if the District does not specifically limit each source to 100 lbs/day.

Another example is the NSPS permit shield proposed for the Tesoro permit. Boiler #6 apparently may have been modified to increase capacity (see detailed comments on the Tesoro permit), so please delete this permit shield for boiler #6. We also recommend that the permit explicitly state that the facility shall not modify nor reconstruct (as defined in 40 CFR part 60) any unit shielded from the NSPS.

The second "subsumed requirements" shield is allowed under EPA "White Paper 2" if the District includes permit conditions that assure compliance with the subsumed requirements and demonstrates the reason for the shield. In some cases, this comparison may be relatively straightforward (i.e. a recent gas turbine NOx BACT determination vs the NSPS NOx limit) while in other cases the relative stringency of the rules compared is not as obvious and a detailed streamlining evaluation will be necessary (such as overlapping but different inspection & maintenance programs).

For instance, the demonstration (for instance the Valero permit streamlining of an EPA NSPS & NESHAP in Table IX b-24 on p646) must show that the applicability of the permit conditions will be as broad as the rule that would be streamlined. As the table itself notes that the Bay Area rule does not cover all of the units that would be shielded from EPA requirements, the District must eliminate this proposed permit shield unless the appropriate permit conditions and demonstration are added. For this second type of shield, please cross-reference the specific permit conditions that will assure compliance with the subsumed requirement(s) and make sure that they are marked federally enforceable in the permit.

Public Comments

EPA has received substantial comments from the public and the refineries earlier this week that we were not able to review in the few days prior to the end of our review period. If we subsequently determine that additional permit revisions are necessary based on these comments, we will inform you through the appropriate process at that time.

Relationship of EPA Comments to Other Bay Area Refinery Permits

We were not able to review all of the thousands of pages of the Bay Area's proposed refinery permits during our 45-day review period, nor did we have enough time to review each part of the three permits that we are commenting on. We appreciate the District's commitment to make changes in response to this letter for each of the five permits, and we will help the District identify where those changes are appropriate as much as we can. We understand that the District will use revisions to the Tesoro permit as a model for revisions that are applicable to the other five permits, unless there are source-specific factors. If we

subsequently discover any additional issues, we will inform you through the appropriate process at that time.

Single vs. Multiple Source Applicability Determinations

CARB's emission inventory database lists 16 Bay Area sources in the petroleum refining SIC code of 2911 (http://www.arb.ca.gov/emisinv/emsmain/emsmain.htm) and a number of other loading racks under SIC code 5171. We understand that the District will use EPA guidance to determine whether Title V permits are necessary for potential support facilities on a case-by-case basis including the hydrogen plant at the Tesoro refinery (the hydrogen plant is now owned by Air Products) and loading racks that may be support facilities.

We have now provided you with additional guidance to explain that co-ownership is not always necessary to determine that a facility is a support facility to the primary source. "In short, where more than 50% of the output or services provided by one facility is dedicated to another facility that it supports, then a support facility is presumed to exist."[2] Other factors include the degree of control exerted by the primary source, the nature of contractual agreement, and whether the potential support facility would exist at its current location if not for the primary facility. We request that you evaluate whether Air Products is a support facility for the Tesoro refinery based on the factors listed in these guidance documents. We request that the District share with us the factors used for that determination. They include Tesoro's dependance on Air Products for hydrogen used in the refinery process, how much of Air Products' raw materials come from Tesoro, and how much of their production serves Tesoro. Please also inform us whether refinery loading racks have their own separate bulk storage, or rely on their host refinery to store the petroleum that they load.

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[2] EPA Region 5 letter dated August 25, 1999 to William Baumann, Wisconsin Department of Natural Resources at http://www.epa.gov/Region7/programs/artd/air/nsr/nsrmemos/oscar.pdf, Also see EPA Region VIII letter dated November 12, 1998 to Julie Wrend, Colorado Department of Public Health and Environment at http://www.epa.gov/Region7/programs/artd/air/title5/t5memos/coorstri.pdf; and EPA Region X letter to Simpson Paper Company dated November 27, 1996 at http://www.epa.gov/Region7/programs/artd/air/title5/t5memos/simpson.pdf. For more examples, enter "support facility" at http://www.epa.gov/region07/programs/artd/air/policy/search.htm.

Enclosure B
EPA Comments on Proposed Tesoro Permit

ABATEMENT DEVICES (Table IIB)

Applicable Requirements

We understand that Tesoro has recently installed a major compressor system at the flare header that will reduce VOC emissions by capturing refinery gasses that were once routinely flared. Because many of the flares are prohibited from routine flaring, and because the refinery must also minimize emissions to comply with 40 CFR 60 Subpart A for all units subject to the NSPS (for instance see Table IV - U, page 95 and Table IV - X, page 102), we recommend including the compressor system in Table II-B along with a condition requiring the use of the compressor. Not only would this condition help assure compliance with applicable requirements to capture non-emergency/malfunction releases, it would demonstrate to the public that Tesoro has made improvements to its refinery that will reduce emissions to the surrounding community.

Monitoring

It is currently unclear what monitoring is required to ensure that the abatement devices in Table IIB meet their emission limits because the table in the proposed permit does not contain this information. For abatement devices subject to monitoring (e.g., the baghouse monitoring mentioned on page 34 of the engineering evaluation), all of the applicable requirements should be included in the table. In addition to making the monitoring requirements clearer, this revision will also make Tesoro's draft permit more consistent with the draft permits for the other refineries (see Table IIB in Chevron's draft permit).

COMBUSTION UNITS

Applicable Requirements

Boilers #5 and #6/ coking (including existing SIP monitoring)

1. It appears that an existing firm limit of 775 mmbtu/hr for boiler #6 (S-904) has been increased to 848 mmbtu/hr on page 17 and in part 1 of Condition #16685. We appreciate the District's commitment to explaining the correct rating in the statement of basis and to imposing all applicable BACT/offset/NSPS requirements.

2. For sources 903 (boiler #5, 740 mmbtu/hr) and 904 (boiler #6, 775 or 848 mmbtu/hr), we appreciate the District's commitment to determining which applicable SIP requirements, including SOx limits and monitoring, apply to the units based on their ability to burn coker exhaust. In addition, we appreciate the District's commitment to adding 300 ppm SOx limits and compliance monitoring pursuant to SIP 9-1-304 for burning solid and liquid fuels.

3. The NSPS requirements on pages 879-880 are incorrectly listed as subsumed. We appreciate the District's commitment to removing a proposed permit shield for the NSPS that lists them as subsumed requirements.

4. We understand that a contractor completely re-built boiler #5, which was followed by a greater than 100 tpy Nox increase (OCE 9/17/02 comment p 34). We strongly recommend imposing any applicable requirements that were triggered by this change.

Monitoring

***Boilers #5 and #6*/ coking**

1. The source testing requirements for boiler #5 (page 775) need to specify that the required source testing will be performed for both liquid and solid fuels, unless coke is deleted from the permit. We understand Tesoro requested that the District delete coke as an allowable fuel, and we appreciate the District's commitment to doing so after reviewing Tesoro's request. If the District does not delete coke, additional testing must be required in the permit in case the fuel is actually used. Since boiler #6 is also permitted to burn coker gas, we believe that the permit must also contain a periodic monitoring evaluation for PM emissions when the boiler is burning it.

2. As noted in our emission cap comment, CEMs are mandatory under 1-520 for boiler #5 and apparently #6 because they are rated greater than 250 bbmtu/hr and may burn non-gaseous fuels.

FCCU/CO boiler #7 - Monitoring for pollutants other than PM

1, Pages 658-959, Condition #11433 sets limits for NOx (354 tpy), SO2 (1335 tpy), CO & POC, and PM/PM10 (151.5 tpy) for FCCU/CO, boiler #7, and unit S-802/S-901 and requires use of an ESP. Please add these limits to tables IV (pages 104-106) and VII (pages 758-759). In addition, monitoring for SOx and PM10 must be added to table VII (Condition #11433 refers to a different permit condition that does not appear to contain any monitoring or testing).

2. The option for "none or COM" monitoring for tube cleaning opacity should be deleted from page 758 because the source has a COM requirement in the preceeding condition.

PM and Opacity Monitoring for units with an Electrostatic Precipitator (ESP)

Pages 747 and 749 state that no monitoring is required for the PM and opacity limits for the FCCU (S-802) and coker (S-806) ESPs because their emissions are negligible. However, the District emissions data indicates that unabated 2001 emissions would be several thousand tpy PM from each of the FCCU and coker boilers, and data from the fluid coker boiler manufacturer indicates that this ESP can exceed the grain loading limit[3]. Therefore, monitoring of the PM and opacity limits for the ESPs must be required

[3]The ESP construction company states that the ESP is designed to handle a fluid coker output of up to 0.5 gr/ACFM (http://www.southernenvironmental.com/casedtls.cfm?id=27). We assume that the outlet temperature would be far less than 1500 + degrees K, and thus the ESP is intended to treat inlet loadings well above the District

and we appreciate the District's commitment to doing so.

Examples of monitoring approved by EPA in the past include (but are not necessarily limited to) parameter monitoring based on specified ranges for the voltage and current, periodic stack tests, and COMs. The proposed Chevron permit requires quarterly source testing of the FCCU and continuous monitoring of the ESP (see pages 431 and 433 of the Chevron permit).

PM and Opacity Monitoring for Units Without ESPs

We appreciate the District's commitment to performing an evaluation of the periodic monitoring required for several sources without ESPs (e.g., FCCU #7, coke loading at unit #10 and handling operations [see page 744]), and to requiring periodic monitoring of those sources unless the District demonstrates that the facility could not exceed the emission rates. For instance, the engineering evaluation states that emissions are negligible because the coke is handled as a slurry; however EPA understands that the emissions from some sources such as the coke loading (unit #810) may have significant potential emissions.

Monitoring for IC Engines

Pages 781-783 of the draft permit list source testing every other year for 300-880 bhp engines without describing what compliance method will be used to meet the limit (see equipment list, pages 22-23). In addition, the permit must contain adequate monitoring (such as parameter monitoring and/or use of calibrated portable analyzers) to determine emissions between tests. Also note that VOC testing may be necessary to demonstrate compliance with the emission cap for rich-burn engines 952-954. Table IV for IC engines is on pages 126-129. Identifying each as rich or lean burn engines in the table would be helpful.

The SJVUAPCD Occidental permit contains examples of quarterly self-testing for engines in the size range of 800-1000 bhp. For 300 bhp engines, the SJV policy (available at http://www.valleyair.org/policies_per/Policies/SSP%201810.pdf) contains examples of appropriate monitoring.

COOLING TOWERS

Applicable Requirements

1. The District agreed to add Section 8-2-301 to the list of source-specific applicable requirements on page 89 of the permit.

Federal Enforcebaility

1. The District agreed to identify BAAQMD Regulation 6 as a federally enforceable

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standard of 0.15 gr/dscf.

requirement on page 89 of the permit.

Monitoring

1. The emissions calculations provided by the District show that under the expected operating conditions, the estimated POC emissions from the cooling towers are significantly less than the 300 ppm limit specified in Section 8-2-301. As a result, periodic monitoring is not required for these sources to demonstrate compliance with the aforementioned limit. At the same time, however, the estimated emissions are not low enough to reach the same conclusion regarding the requirements of 40 CFR 63 Subpart CC, which have an applicability threshold of 20 ppmv organic HAP. In the absence of source-specific emissions or monitoring data, the District should, at a minimum, determine which of the cooling towers are vulnerable to HAP emissions and require periodic monitoring of the identified sources to confirm that the emissions remain below the 20 ppmv threshold.

2. The District agreed that monitoring requirements for the cooling towers should be added to Table VII-A pursuant to parts D3, D4, D5, D6, E3, E4, E5, and E6 of Condition #19199.

3. The District agreed to add Sections 6-311 and 8-2-301 to the list of applicable limits and compliance monitoring requirements on page 756 of the permit.

Miscellaneous

1. The circulation rate specified for source 983 in Appendix D differs from the value listed on page 24 of the SOB and both of these values differ from the one on page 23 of the draft permit. The District agreed to resolve this discrepancy by using the appropriate circulation rate.

2. The permit specifies two different limits for the permitted maximum operating capacity for source 975. While Condition #18435 limits the recirculation rate to 54,000 gpm (page 695), paragraph D1 of Condition #19199 establishes the limit at 69,000 gpm (page 703). The District has agreed to investigate and resolve this issue.

3. The District agreed that source 782 is a methanol feed storage tank and is improperly labeled as a cooling tower on page 654 of the permit.

4. The District noted that the applicable concentration limits have not been inserted into Parts D5, D5A, E5, and E5A of Condition #19199. The appropriate limits will be included in the permit once they are established by the District.

EMISSION CAPS

Applicable Requirements

Unclear applicability

The proposed permit contains two emission caps for five criteria pollutants on pages 599 and 631. In is not clear which cap applies or whether both apply. Please specify in the permit which equipment is subject to the cap and list any other tables that are relevant to the caps. Also please clarify whether both caps apply, or whether one cap is a modified version that superceded the prior one. Please make all cap reductions required by condition 9.11 and delete references to units that are listed under the monitoring requirements but that are no longer are permitted (see page 602, S-911 and S-918).

Variance Exemptions

The permit allows the exclusion of any emissions for which a variance has been granted (page 609 (K) and 642 (K)). We appreciate the District's commitment to deleting these two paragraphs or stating that they do not affect federal enforceability of the cap. Variances may not be included in Title V permits as federally enforceable requirements, and are also prohibited from State Implementation Plans. For more information, see *Industrial Environmental Association v. Browner*, No. 97-71117 (9th Cir., May 26, 2000) and 62 FR 34641 (June 27, 1997). For instance see: FRN p80278 - middle col. 52.21 defn's 52.21(b)(48)(ii)(a & b).

NSR Applicability Baselines

The permit allows the use of the cap as a baseline for future offset applicability determinations (see pages 609(G) and 641(G)). These caps appear to have been set using a 1977-79 baseline. District SIP approved Rule 2-2-604.2 specifies the offset emission baselines[4] and we appreciate the District's commitment to clarifying in the statement of basis that the cap may only be used as an emissions baseline if allowed under District Rule 2-2-604.2. This clarification should also be added to the permit as soon as possible.

CO Increases

We appreciate the District's commitment to deleting provisions allowing CO increases based on modeling (for example, see page 609-610). The appropriate requirements for approving an increase are specified in the District's SIP approved NSR rule and 40 CFR.

Offset Generation

The proposed permit allows "equivalent permanent emission reductions" as a method of generating offsets to be used on-site without stating the other criteria necessary to generate offsets (for example, see p 634(F)). We appreciate the District's commitment to adding a statement that they must meet the criteria of the District's SIP-approved NSR rule to be used as credits under 634(F).

Monitoring

[4]The facility must use recent actual emissions unless the facility fully offset the cap level. This deference could be substantial - for instance the portion of the facilities' 1958 TPY of NOX attributable to the capped units, rather than 2867 Nox (cap#1) or 3182 Nox (cap#2) for a hypothetical applicability determination conducted today.

NOx CEMs for Cap Compliance and Compliance with other Limits

1. The permit must explain how compliance with the cap will be determined. Cap condition #4 contains some CEMS requirements for NOx (page 602) and many sources will be required to monitor NOx and CO to meet other requirements (BAAQMD Policy Memorandum: NOx, CO, and O2 Monitoring Compliance with Regulation 9, Rule 10). The cap does not address the use of these CEMs for compliance and does not contain a method for determining emissions from other units. We appreciate the District's commitment to adding the compliance monitoring method to the permit, and we strongly recommend clarifying that CEMs data must be used for all units that are required by the District to have them. In addition, we recommend listing CEMs as federally enforceable where they are required in the permit[5].

2. The cap must also explain how compliance with other limits will be established. The permit contains H_2S monitoring for several units and it would be helpful if the permit required the facility to convert the H_2S content to equivalent SO2 emissions for cap compliance purposes. The permit requires SO2 monitoring or daily source testing at sulfur recovery units (pages 606-607), and Tesoro must "calculate the emission of SO2 from all flares at the refinery." Therefore, it appears that H_2S content monitoring of flared gases is required to assure compliance with the cap.

3. Please revise the cap to state that the CEMs are required for sources such as the FCCU (S-802 page 746), coker (S-806 p.749), boiler #6 (S-904 - this unit is apparently subject to SOx CEMs on table IV due to burning coker gas), claus 3-stage sulfur recovery unit (S-1401 page 789), and the sulfuric acid manufacturing plant. Please also add CEMs or another accurate method of quantifying SO2 emissions from any other units with SO2 emissions from refinery feed stock (i.e., not just from combustion of refinery fuel gas that is already continuously monitored.) Similarly, the permit must contain a compliance method for the PM and VOC limits, and the emission rates for units subject to the cap must be verified by compliance testing where feasible.

4. Pages 615-616 (parts 11 and 12) allow discretion to allow "partial credit" for control at the discretion of the APCO. If the source wishes to use other data not previously approved for partial-control situations, please add source testing requirements to the permit.

FLUID CATALYTIC CRACKING UNIT

Federal Enforceability

Citations for 1-522 and 1-522.7 (page 74, Table IV - K) should be federally enforceable

[5]Please re-label CEM requirement for boiler #5 on p121 as fed/enf (for furnaces on p.113; p125 also). CEMs are already mandatory under 1-520 for boilers #5 and any similar units because they are >250 bbmtu/hr and may burn non-gaseous fuels.

because these rules are in the SIP.

FUGITIVE SOURCES (PRESSURE RELIEF VALVES, PUMPS, COMPRESSORS)

Applicable Requirements

We appreciate the District's commitment to adding the appropriate applicable requirements to the permit for these sources.

Applicable NSPS Requirements

1. The permit includes a citation for section 60.482-2(c) (NSPS subpart VV) in permit but does not include the specific requirement. The following language should be included in the permit because it is an applicable requirement:

   60.482-2(c)(1) - When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Sec. 60.482-9 (delay in repair).

2. The permit includes a citation for section 60.482-2(c) in permit but does not include the specific requirements. The following applicable requirements should be included in the permit:

   a. 60.482-9(a) - Delay of repair of equipment for which leaks have been detected will be allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown.

   b. 60.482-9(b) - Delay of repair of equipment will be allowed for equipment which is isolated from the process and which does not remain in VOC service.

   c. 60.482-9(c) - Delay of repair for valves will be allowed if: (1) The owner or operator demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and (2) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with Sec. 60.482-10.

   d. 60.482-9(d) - Delay of repair for pumps will be allowed if: (1) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system, and (2) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.

   e. 60.482-9(e) - Delay of repair beyond a process unit shutdown will be allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the

first process unit shutdown. [48 FR 48335, Oct. 18, 1983, as amended at 65 FR 78277, Dec. 14, 2000]

3. The permit does not address section 60.486(c)-(h) (recordkeeping and reporting requirements under 40 CFR Part 60 Subpart VV). The following applicable requirements should be included in the Title V permit:
    a. 60.486(c) - When each leak is detected the following information shall be recorded in a log that is kept in a readily accessible location: (1) The instrument and operator identification numbers and the equipment identification number. (2) The date the leak was detected and the dates of each attempt to repair the leak. (3) Repair methods applied in each attempt to repair the leak. (4) ``Above 10,000" if the maximum instrument reading measured by the methods specified in Sec. 60.485(a) after each repair attempt is equal to or greater than 10,000 ppm. (5) “Repair delayed” and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak. (6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown. (7) The expected date of successful repair of the leak if a leak is not repaired within 15 days. (8) Dates of process unit shutdowns that occur while the equipment is unrepaired. (9) The date of successful repair of the leak.

    b. 60.486(d) - The following information pertaining to the design requirements for closed vent systems and control devices shall be recorded and kept in a readily accessible location: (1) Detailed schematics, design specifications, and piping and instrumentation diagrams. (2) The dates and descriptions of any changes in the design specifications. (3) A description of the parameter or parameters monitored to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring. (4) Periods when the closed vent systems and control devices are not operated as designed, including periods when a flare pilot light does not have a flame. (5) Dates of startups and shutdowns of the closed vent systems and control devices.

    c. 60.482-10(e) - The following information shall be recorded in a log that is kept in a readily accessible location: (1) A list of identification numbers for equipment subject to the requirements of this subpart. (2)(i) A list of identification numbers for equipment that are designated for no detectable emissions. (ii) The designation of equipment as subject to the requirements of Sec. 60.482-2(e), Sec. 60.482-3(i), or Sec. 60.482-7(f) shall be signed by the owner or operator. (3) A list of equipment identification numbers for pressure relief devices required to comply with Sec. 60.482-4. (4)(i) The dates of each compliance test as required in Secs. 60.482-2(e), 60.482-3(i), 60.482-4, and 60.482-7(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test. (5) A list of identification numbers for equipment in vacuum

service.

d. 60.482-10(f) - The following information pertaining to all valves that are subject to the unsafe-to-monitor and difficult-to-monitor requirements under 60.482-7(g) and (h) and to all pumps subject to the unsafe-to-monitor requirements under 60.482-2(g) shall be recorded in a log that is kept in a readily accessible location: (1) A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve or pump. (2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve.

e. 60.482-10(g) - The following information shall be recorded for valves complying with Sec. 60.483-2: (1) A schedule of monitoring. (2) The percent of valves found leaking during each monitoring period.

f. 60.482-10(h) - The following information shall be recorded in a log that is kept in a readily accessible location:(1) Design criterion required in Secs. 60.482-2(d)(5) and 60.482- 3(e)(2) and explanation of the design criterion; and (2) Any changes to this criterion and the reasons for the changes.

4. 40 CFR 61 Subpart FF (61.340 - 61.359)
   Please explain why 40 CFR part 61, subpart FF is not included as an applicable requirement. If this standard is an applicable requirement please see the Chevron comments on this subpart (applicable requirements and monitoring).

Vessel Depresurization Rule

We appreciate the District's commitment to requiring monitoring of the pressure for all of the pressure vessels to determine compliance with SIP Reg 8-10.

Monitoring

Component Monitoring

1. BAAQMD Rule 8-18
   Table VII-I (pages 862-868) indicates that no monitoring is required for several Rule 8-18 requirements. EPA recommends adding citations to Rule 8-18 leak inspection requirements or adding new monitoring requirements for them in the permit. Among these please add,
   a. 8-18-306.1: P/E record-keeping to the monitoring requirements for this rule.
   b. 8-18-306.2: record-keeping to the monitoring requirements for this rule.
   c. 8-18-307: inspection and record-keeping to the monitoring requirements for this rule.

2. CFR 40 part 60, Subpart QQQ

60.692-5(b): Table VII-I (pages 862-868) indicates that no monitoring is required for control devices used to meet the 95% control limits or for certain temperature and residence time requirements, which may be an alternate operating scenario. The permit must contain monitoring requirements and conditions for existing controls and for alternate operating standards (including notification, etc) for these controls if the facility wishes to have the option of using them to comply with the standard.

3. CFR 40 Part 60, Subpart VV and Part 61, Subpart V
   Please see Chevron comments.

4. CFR 40 Part 61, Subpart FF
   Please see our comments under applicable requirements.

PERMIT SHIELDS

In addition to our general comments on permit shields (see enclosure A), we understand that the District will remove the flare permit shield from Table IX-B. This regulation is currently proposed based on District Regulation 10, which is not listed in the District and will be re-evaluated by the District in the future. We recommend not including permit shields in general unless the District can show that the shielded regulation (in this case Reg 8-2) is unambiguously not applicable.

SULFUR TREATMENT EMISSIONS

Monitoring

Opacity and PM Requirements for sources 1401, 1404, 1405, and 1411

We appreciate the District's commitment to adding testing for sources 1401, 1404, 1405, and 1411, for opacity and PM requirements (see Table VII A, pages 798-792).

Monitoring for 95% H_2S monitoring requirement (SIP Rule 9-1-313)

We appreciate the District's commitment to adding annual source testing process monitoring. We also recommend as monitoring to verify that the unit is operating properly.

Monitoring for SO3/H_2SO4 Limit (SIP Rule 6-330)

Please provide a monitoring evaluation for any controls necessary to meet this limit (see engineering evaluation, page 31).

Future Effective Date for SOx Limit

Please specify the compliance date and the monitoring method for the 4 lb SOx/ton sulfur limit that is effective 4 years after an ATC is issued (page 638 condition (B)(9)).

TANKS

Applicable Requirements

1. It appears the District made a determination that 40 CFR 60 Subparts A and Kb are not

applicable to source 658 because the requirements were added to the permit and then later deleted (pages 186-188, Table AZ Cluster 01a). If this is correct, please explain why and note that condition 63.640(n) can also be deleted from the applicable requirements for this source on page 187. In addition, the monitoring requirement pursuant to 60.116b(e) can be removed from Table VII on page 798.

2. Part 1 of Condition #13725 requires that source 651 comply with the provisions of Rule 8-5, however Table IV - BE indicates that this source is exempt from the rule (see page 200). The information in the permit and the statement of basis is insufficient for EPA to determine the rule's applicability for this source and it is suggested that the District review the applicability to resolve this potential discrepancy.

3. Requirement 63.642(e) was omitted from Table IV - AZ Cluster 01a for source 658 and should be added (see page 188).

Federal Enforceability

Several federally enforceable conditions were not marked as such on pages 245 and 246 of the permit (Table IV - BQ Cluster 20); the permit should be changed accordingly.

Monitoring

External Floating Roof Tanks

EPA and the District have reached the agreement that the compliance monitoring requirements for Tesoro's external floating roof tanks are inadequate for the following reasons and that the permit will be changed based on the comments below.

Not Practically Enforceable

To demonstrate compliance with the requirements of Sections 8-5-320, 321, and 322, the permit requires monitoring at a frequency of 1 or 10 year intervals depending on the age of the rim seal, however it does not specify the frequency for each point in the possible range of ages. Such an ambiguous requirement is subject to interpretation and does not establish a clear legal requirement for the permittee.

Inconsistent with SIP Rule 8-5

The monitoring requirements established to demonstrate compliance with Sections 8-5-320, 321, and 322 are not consistent with the requirements of the rule. The District should review the monitoring requirements for these tanks and revise them based on the comments below. The requirements for source 701 on page 810 of the draft permit serve as examples of the requirements to which these comments refer. For an example of these comments applied in other Bay Area refinery permits, refer to Table VII.F.1.5 for Cluster 11 in the Chevron draft permit.

1. To demonstrate compliance with the requirements of 8-5-320, the permit requires monitoring when a new rim seal is initially installed and then on a periodic basis at 1 or 10 year intervals depending on the age of the rim seal. However, according to Section 8-5-401.2, the tank fittings must be inspected

twice per calendar year at 4 to 8 month intervals. In addition to changing the frequency in the permit to that required by the rule, the District should change the monitoring requirement citation from 320 to 401.2.

2. To demonstrate compliance with the requirements of 8-5-321, the permit requires monitoring when a new rim seal is initially installed and then on a periodic basis at 5 or 10 year intervals depending on the age of the rim seal. Similarly for Section 8-5-322, the permit requires initial monitoring and then monitoring at 1 or 10 year intervals depending on the age of the seal. According to Section 8-5-401.1, the circumference of each primary and secondary seal must be inspected for compliance with Sections 321 and 322 twice per calendar year at 4 or 8 month intervals and upon installation of new seals or repair of the existing seals. In addition to changing the monitoring frequency required in the permit, the District should also change the citations for the monitoring requirements from 321 and 322 to 401.1.

3. To demonstrate compliance with the requirements of Section 8-5-328.1.2, the permit requires monitoring on an unspecified frequency or on an event basis; however Section 8-5-502 establishes an annual source testing requirement. In addition to changing the required monitoring frequency, the District should add Section 8-5-502 as a monitoring requirement citation. (Also please see comment 7 for additional statements regarding this monitoring requirement.)

4. The inspection requirements for pressure vacuum valves were omitted from the permit. Pursuant to Section 8-5-403, tanks subject to the requirements of Section 8-5-303 must be inspected for compliance twice per calendar year at 4 to 8 month intervals.

Internal Floating Roof Tanks

EPA identified issues with the monitoring requirements for the internal floating roof tanks similar to the ones identified for the external floating roof tanks. The District has agreed to replace the requirements intended to demonstrate compliance with Sections 8-5-320, 8-5-321, and 8-5-322 with the requirements specified in Section 8-5-402. Please note that comments 1c and 1d also apply to the internal floating roof tanks.

NSPS Subpart Kb

For sources subject to NSPS Subpart Kb, the frequency specified for inspections of the secondary rim seal is not consistent with the regulations. The permits require inspections for holes or tears of the secondary rim seal at a frequency of once every ten years; however, pursuant to 60.113b(a)(2), the secondary seal should be inspected for holes, tears, or detachment on an annual basis.

Daily Throughput Records for Source 795

Part 4 of Condition #5711 requires that records of the daily throughput and contents of

source 795 be kept to demonstrate compliance with the other parts of the condition. This compliance monitoring requirement should be added to Table VII - Cluster 05 on page 808.

Annual Source Testing for Rule 8-5-502

Rule 8-5-502 requires annual testing of the emission control device used to comply with the requirements of subsection 8-5-328.1.2. However, in many instances the permit only lists monitoring on an event basis (ex. see Table VII - cluster 05 on page 808). The District indicated that monitoring on an event basis is called for. However the annual requirement was omitted and agreed to update the permit accordingly.

Monitoring for Sources Exempt from Rule 8-5

Several tanks and tank clusters are exempt from the requirements of Regulation 8-5. However, no monitoring is required for them pursuant to that rule. For the tanks that claim exemption based on low vapor pressure, the permit should require monitoring whenever the tank contents are changed. For examples of tanks exempt from Reg. 8-5 without monitoring, refer to the monitoring requirements for Cluster 01a (pp 797-799) and Cluster 01b (pp 800-805). From the permit, the basis for the exemption is unclear; in all such cases, the District should review the basis and apply the monitoring requirement where appropriate.

Unspecified Monitoring Frequency

The frequency specified for many tank monitoring requirements in all of the permits is "not specified." In cases where the monitoring frequencies are not specified in the applicable requirements, the District should establish appropriate ones.

Monitoring per Condition #8535

The applicable limits and monitoring requirements for condition #8535 were omitted from Table VII - A for source 1404 on page 791.

Monitoring for Tank 323

Please ensure that monitoring for the 98% limit on tank 323 (page 674) is included in the permit.

Miscellaneous

1. Section VII of the permit frequently lists monitoring requirements for tank cleaning control device standards and then refers to 328.2 as the emission limit citation. In all such instances, 328.2 should be changed to 328.1.2.

2. Tank A-846 was mislabeled as S658 on page 188 of the permit; it should be labeled as S656.

3. The District's latest revision to Rule 6-301 is in the SIP. Therefore, the duplicative reference to SIP 6-301 and its associated limit can be removed from Table VII A for sources 1413 and 1414 on page 795 as long as the permit contains the current SIP

version.

4. Source 990 was omitted from Table VII - Cluster 01b on page 800 of the permit (should be listed in the same table as S1).

5. Rule 8-5-311 has been deleted from the District's rules and the SIP. Please remove this citation and add a citation to 8-5-306 on p.808 and check that it is included for other units subject to this rule.

6. The rule citation for the "Records" requirement for source 1413 on page 166 should be changed from 12-10-510 to 12-10-501.

7. Several of the tables in Section IV duplicate the requirements for 63.642(e) and 63.654 (i) (see Table IV - BJ Cluster 02 on page 213 for an example). Where appropriate, the tables should be revised by deleting the duplicated conditions..

8. We understand that the District will add the basis for exempt tanks Tesoro pp 37-40 to the permits and we agree with this revision.

WASTEWATER TREATMENT

Applicable Requirements

S The Title V permit does not include the requirements that are required under section 60.692-2 of 40 CFR Part 60 Subpart QQQ, which applies to individual drain systems, junction boxes and sewer lines. These conditions must be included in the permit.

S Please clarify in the Title V permit whether section 8-8-112 applies. Per 8-8-112, the requirements of 8-8-301, 302, 306, and 308 do not apply to the separator if the influent wastewater is less than 20°C (60°F) and/or the wastewater is comprised of less than 10 ppm volume of critical organic compounds provided 8-8-502 is met. The permit includes 8-8-112 as well as other requirements that may not apply according to 8-8-112. We understand the District will clarify whether 8-8-112 applies and will remove any conflicting requirements.

S The requirements of section 8-8-303 are not addressed in the Title V permit. We understand the District will include the requirements under 8-8-303 in the Title V permit.

S Please verify whether the facility has slop oil vessels. If so, rules 8-8-305, 8-8-305.1 and 8-8-305.2 apply. Also note that 40 CFR Part 60, Subpart QQQ 60.692(d)-(e) applies to slop oil vessels.

S Please verify whether sludge dewatering occurs at the facility. If so, rule 8-8-304 may apply.

- Please verify whether the wastewater treatment system falls under Group 1 or Group 2 for refinery MACT standards (40 CFR Part 63 Subpart CC). This must be clear in the permit to determine what requirements apply to the wastewater treatment system. We understand the District will clarify whether the wastewater treatment system falls under Group 1 or Group 2 for the purposes of 40 CFR Part 63 Subpart CC.

- Please verify whether the wastewater treatment system falls under Group 1 or Group 2 for 40 CFR Part 63 Subpart FF (Subpart CC for WWTPs at refineries require refinery to comply with 61.340-61.355 standards under NESHAP part 61 subpart FF and 63.647 under part CC for group 1 sources). This must be clear in the permit to determine what requirements apply to the wastewater treatment system. We understand the District will clarify whether the wastewater treatment system falls under Group 1 or Group 2 for the purposes of 40 CFR Part 63 Subpart FF.

- The permit must specify the recordkeeping and reporting requirements under section 63.647(c) (40 CFR Part 63 Subpart CC) that apply to the facility. The current permit does not. The following language should be included in the permit:

  > 63.647(c) - If the owner or operator is required under subpart FF of 40 CFR part 61 to perform periodic measurement of benzene concentration in wastewater, or to monitor process or control device operating parameters, the owner or operator shall operate in a manner consistent with the minimum or maximum (as appropriate) permitted concentration or operating parameter values. Operation of the process, treatment unit, or control device resulting in a measured concentration or operating parameter value outside the permitted limits shall constitute a violation of the emission standards. Failure to perform required leak monitoring for closed vent systems and control devices or failure to repair leaks within the time period specified in subpart FF of 40 CFR part 61 shall constitute a violation of the standard.

- The permit contains a citation for 60.692-5 (NSPS subpart QQQ for refinery wastewater systems) which is for closed vent systems and control devices. The permit contains insufficient information to determine if a control device required. If one is required, please verify whether CAM applies to it. If so, CAM must be addressed in the permit. As the result of a recent conference call, we understand the District will clarify whether CAM applies.

Monitoring

1. The permit contains a citation for 60.692-5 (NSPS subpart QQQ for refinery wastewater systems) which is for closed vent systems and control devices. Is a control device required? Please include all necessary monitoring for any control device that is used.

2. We understand that Unit #606 and #607 wastewater air strippers A and B can no longer use the carbon controls listed in Table VII and the engineering evaluation. If emissions inventory estimates for 2001 are correct significant then particulate emissions of 328 tpy

and benzene emissions of 60 tpy for each unit are reduced by at least 90% to comply with SIP rule 8-47-302 (Furnace S-950 may also be used as a control device). Please delete the carbon controls and add periodic monitoring for the emission controls that are used to meet the 20 ppm POC limit in section VI and the 90 % control efficiency. In addition, please provide us with the applicability determination used to delete the benzene NESHAP and MACT from Table IV and Table VII.

Enclosure C:

EPA Comments on Proposed Chevron Permit

COMBUSTION UNITS

Applicable Requirements

Furnaces and Heaters

The daily throughput limit specified for S-4044 in Table II A 2 on page 40 is greater than the limit allowed by Condition #16686 on page 368. Please revise the limit on page 40 so that it is consistent with the current limit.

COOLING TOWERS

Applicable Requirements

1. Condition 10160 (p374) of the draft permit lists three additional cooling towers (sources 4018, 4179, and 4074) that are not subject to the applicable requirements on page 138. These units should be added to page 138 unless the District can clarify why these units are not subject to the requirements. These units were also omitted from the section on applicable limits and monitoring requirements (see page 426).

2. Source 4329 appears in the cooling tower calculations; however it does not appear in the statement of basis or draft permit. Unless the District can explain why this source is not subject to the requirements of the other cooling towers, it should be added to the relevant tables in the draft permit.

Monitoring

1. A total of 14 cooling towers are identified in the draft permit; however emissions calculations are provided for only three units. The District can not exempt units from monitoring requirements if no data and calculations are available for them. This is especially true for units S-6051, S-6054, and S-6055; these units have additional source-specific emissions limits that are more stringent than those in Rule 8-2-301, which provide the basis for the exemption. Before exempting all of the cooling towers from particulate and POC monitoring requirements, the District should add calculations for the following units to Appendix G: 4018, 4073, 4074, 4076, 4078, 4172, 4179, 4187, 6051, 6054, and 6055. Additional calculations are also required to demonstrate compliance with Part 1 of Condition #14596, Part 1 of Condition #10597, and Part 1 of Condition #10598 for units 6051, 6054, and 6055 respectively.

2. The calculations provided in Appendix G show that the PM emissions from all of the refineries are well below the 0.15 gr/dscf limit of rule 6-310. As a result, the District says that monitoring of the cooling tower emissions for particulates is not required. Despite this finding, monitoring requirements are included in the permit (see page 426) and statement of basis (page 24).

3. According to Table II A of the permit, the daily throughput limits for units 4076, 4172, 4173, 4191, and 4329 are under investigation. At the same time, the calculations in

Appendix G have specific values for three of these units. If the throughput limits for units 4173, 4191, and 4329 are still under investigation, these calculations should be removed from the appendix and the units should be subject to monitoring requirements for PM and POC. If the throughput limits are no longer under investigation, the appropriate limits should be inserted into the permit and the emissions calculations should be updated.

EMISSION CAPS

We understand the BAAQMD has determined that caps have created implementation problems. In order to assure compliance with the cap emission limits, we recommend that the District make any necessary revisions in addition to those noted below.

Applicable Requirements

1. We appreciate the District's commitment to replace ambiguous language regarding fugitives from "existing process units"and instead clearly state which fugitives are included and which are excluded. Also, the permit must clarify whether the limits are adjusted for new fugitive sources, p302, condition H.

2. We appreciate the District's commitment to clarify that the "equivalent reductions" authorized on p300, condition 9E, must also meet the District's SIP-approved NSR rule to qualify as offsets.

3. Please delete conditions for burning fuel oil (for example p307), as they conflict with the prohibition on p297, condition 6(A).

4. We appreciate the District's commitment to clarify that emission caps may be used as an offset baseline (p301, condition G) only if allowed under the approved SIP rule; and to delete the variance provision or clearly state that it does not affect federal enforcement (p302, K).

Monitoring

1. Please specify which units will use CEMs data on p295-296 and indicate how emissions will be determined for other units (some of which could use emission factors on pp 320-327 that could differ based on whether they are "new" or "existing" sources).

2. We recommend clarifying the source testing requirements that will be used to verify compliance with the cap. For instance, we understand that the District, CARB, and South Coast test data indicate that wharf emission factors are understated, including uncontrolled loading of "low pressure" materials (CBE p.42 9/22/03).

Miscellaneous

1. We appreciate the District's commitment to state the effective date of the cap or remove unclear language regarding this date on p302.

FLARES

Applicable Requirements

We understand the District agrees with us that it is inappropriate to exempt flares from Regulation 8-2 based on a determination that they are exempt from Regulation 8-1. Regulation 8-1, which regulates the storage and disposal of rags, open containers, and the clean-up of spray equipment, is not an appropriate reason for an exemption. Please remove citations to Regulation 8-1-110.3 exempting flares from Regulation 8-2.

Federal Enforceability

On pages 106 (Table IV.A.2.1) and 397 (Table VII.A.2.1), parts 1 and 2 of condition 18656 are listed as not federally enforceable. This condition is based on Part 70 rule 2-6-409.2 (page 388-389) and should be marked federally enforceable.

Miscellaneous

1. Please move gas turbine requirements from Table IV.A.1.1, source-specific applicable requirements for flares (page 102-104), to the gas turbine section of the permit.

2. Please clarify whether S-6004, "incinerator sulfur oxidizer" is in operation. It is mentioned on page 341, but nowhere else.

FLUID CATALYTIC CRACKING UNIT

Applicable Requirements

NSPS requirements 60.104(b)(3), 60.104(c), 60.105(e)(2), 60.106, 60.106(b)(3), and 60.107 must be included in the permit for S-4285.

PERMIT SHIELD

Applicable Requirements

The following federal regulations are inappropriately subsumed by BAAQMD Regulations (p490-491):

1. 60.482-7(g): While BAAQMD rule 8-18 does not specifically allow for relief from monitoring unsafe-to-monitor equipment, it appears that unsafe-to-monitor equipment could be covered by rule 8-18-306 - Non-repairable Equipment. This rule requires that any valve etc which cannot be repaired as required by 8-18-302, 303, or 305 must be repaired or replaced within 5 years or at the next scheduled turnaround, whichever comes first. As there is no definition of "non-repairable equipment" in this rule, unsafe-to-monitor equipment could be covered. The federal rule requires a

demonstration of immediate danger and monitoring as frequently as practicable during safe-to-monitor times. It appears that neither rule subsumes the other. Please add 60.482-7(g) to Tables IV and VII.

2. 61.242-7(g): Please see 1 above. Please add 61.242-7(g) to table IV, and to table VII with appropriate monitoring.

Miscellaneous

Table IX-A-2 (p490) is mislabeled as a permit shield for non-applicable requirements. Please change to permit shield for subsumed requirements.

STORAGE TANKS

Applicable Requirements

1. For sources subject to NSPS Subpart Kb, the frequency specified for inspections of the secondary rim seal is not consistent with the regulations. The permits require inspections for holes or tears of the secondary rim seal at a frequency of once every ten years; however, pursuant to 60.113b(a)(2), the secondary seal should be inspected for holes, tears, or detachment on an annual basis.

2. Several sources are subject to the requirements of Condition #20773; however the District neglected to include the condition in the permit. All relevant parts of this condition should be incorporated into Section VI.

3. The permit contains a discrepancy in the requirements that apply to Cluster 02. Page 160-162 lists numerous applicable requirements from rule 8-5; however Table VII.F.1.3 claims an exemption from these requirements on page 446. The information in the permit and statement of basis is not sufficient for EPA to determine the applicability of the rule. The District should review the applicability and make the appropriate corrections to the permit.

Federal Enforceability

It is unclear why conditions 4233, 12580, and 18137 are not federally enforceable in the permit. Permit conditions originating from SIP-approved permits (such as those issued pursuant to NSR or PSD permit programs) should be identified as federally enforceable.

Monitoring

1. The frequency specified for many tank monitoring requirements in all of the permits is "not specified." In cases where the monitoring frequencies are not specified in the applicable requirements, the District should establish appropriate ones.

2. For the internal floating roof tanks in Cluster 12, the District mistakenly cited the monitoring requirements in Section 8-5-401. The requirements of Section 401 should be changed to those of 402.

3. The inspection requirements for pressure vacuum valves specified in Section 8-5-403 were omitted from the monitoring requirements for numerous tank clusters. This monitoring requirement should be added to the list of requirements for all tanks subject to Section 8-5-303.

SULFUR TREATMENT EMISSIONS

Federal Enforceability

Sulfur Recovery Unit

The requirements for 9-1-313, 9-1-313.2, 1-522 and 1-522.7 for units S-4227, S-4228, and S-4229 should be federally enforceable because the rule citations are in the SIP.

VOC COMPONENT FUGITIVES (SUCH AS COMPRESSORS, FLANGES, PUMPS, VALVES)

Applicable Requirements

Fugitive Sources (Table IV.H.2.1, p275-278 and Table VII.H.2.1, p477-481)

CFR 40 Part 60, Subpart A *and* CFR 40 Part 63, Subpart A

Please include 40 CFR part 60, subpart A and 40 CFR part 63, subpart A in the applicable requirements table (IV.H.2.1) and as needed in the applicable limits and compliance monitoring table (VII.H.2.1).

CFR 40 Part 61, Subpart FF

Please add more of the requirements from 40 CFR 61.349 (from subpart FF) to tables IV and VII.

CFR 40 Part 60, Subpart QQQ

EPA Comments on Proposed Chevron Permit

Please include more detail for requirements for 40 CFR 60 QQQ on Table IV, and add limits and monitoring to Table VII, as needed.

CFR 40 Part 60, Subpart VV and Part 61, Subpart V

Please make the following changes:

1. 60.482-9(d): Add italicized phrase - "pumps under 'delay of repair' repaired *as soon as practicable, but* within 6 months."

2. 60.482-4(a): Change wording to "Pressure relief valve (gas/vapor) <500 ppm above background," since that is the limit.

3. 60.482-7(b) and 61.242-7(b): This limit covers 60.482-7(b) and (c) and 61.242-7(b) and (c). Please fix the citation.

4. 60.482-10 (c) and 61.242-11(c): Please specify which limit the refinery will be using. We recommend a 0.75 second residence time, with the temperature maintained at 816 ^{0}C.

5. 60.482-10(g) and 61.242-11(f): Change to, "First attempt to repair leak (visible or >/= 500 ppm) within 5 days, repair complete within 15 days, except as allowed for in 60.482-10(h)."

6. 60.482-4(b) and 6.242-4(b): Change wording to, "Pressure relief valve (gas/vapor) 500 ppm within 5 days after a pressure release event."

7. 60.482-8(a) and 61.242-8(a): Change wording to, "...if detected by inspection, or if a leak is seen, heard, or smelled."

8. 61.242-2(g): The limit cited is for 61.242-2(h). If the district meant (h) please change limit to reflect this. If the district meant (g) change limit to " If unsafe to monitor, monitor as frequently as practicable."

9. 61.242-3 and 60.482-3: If practical, please specify whether the refinery will be using a sensor with an audible alarm or if the refinery will be checking daily. If using a sensor please add a requirement for sensors to all equipment subject to this regulation.

10. 61.242-4: Change wording to "Pressure relief valve (gas/vapor) <500 ppm above background,"since that is the limit.

Gasoline Dispensing Facilities

1. The statement of basis and permit do not contain sufficient information to determine whether or not source 9304 classifies as a Group 2 gasoline loading rack under Subpart CC of 40 CFR Part 63 and whether it is therefore subject to the requirements of the subpart. We appreciate the District's commitment to review the applicability of 40 CFR 63.650 with respect to this source and, if appropriate, include the applicable requirements in the permit.

2. The requirements of 40 CFR 63 subpart Y were omitted from the permit for sources 4315, 9321, 9322, 9323, 9324, 9325, and 9326 and no justification for the omission was provided in the permit or the statement of basis. According to 63.651(a), "the owner or operator of a marine tank vessel loading operation located at a petroleum refinery shall comply with the requirements of 63.560 through 63.567." We appreciate the District's commitment to revise the permit to include the necessary applicable requirements or provide documentation in the statement of basis.

3. Section 8-44-305 was omitted from the list of applicable requirements for the loading terminals in Table IV.B.5.1 on page 136-137. The District should update this table accordingly.

Federal Enforceability

Fugitive Sources

Please explain the discrepancy between the enforceability determination for condition 8869 on pages 394 and 284, and please change the permit appropriately.

Monitoring

Fugitive Sources (Table VII.H.2.1, p477-481)

<u>BAAQMD Regulation 8-18</u>

Please add appropriate monitoring for 8-18-306.1, 8-18-306.2, 8-18-306.3, and 8-18-307 to Table VII.

<u>BAAQMD Regulation 8-28</u>

Please add limits and monitoring for 8-28-301 to Table VII. We suggest adding limits and monitoring for non-SIP rules from 8-28.

CFR 40 Part 60, Subpart QQQ

1. 60.692-5(g): The monitoring included is inappropriate for this limit. Please add continuous temperature monitors and gas flow meters. The residence time and temperature requirements of this limit need to be included in the permit for all applicable units.

2. 60.692-5(b): No monitoring is included for 95% efficiency. Please include a monitoring method to determine compliance with this regulation.

CFR 40 Part 60, Subpart A *and* CFR 40 Part 63, Subpart A

Please include 40 CFR part 60, subpart A and 40 CFR part 63, subpart A in the applicable limits and compliance monitoring table (VII.H.2.1).

CFR 40 Part 61, Subpart FF

Please add more of the requirements from 40 CFR 61.349 (from subpart FF) to Table IV and Table VII.

CFR 40 Part 60, Subpart QQQ

Please add limits and monitoring for 40 CFR part 60, subpart QQQ to Table VII.

CFR 40 Part 60, Subpart VV and Part 61, Subpart V

Please make the following changes:

1. 60.482-9(d): Add P/E record-keeping and reporting.

2. 60.482-4(a): Add “measure for leaks” (Periodic) to monitoring column.

3. 60.482-7(b) and 61.242-7(b): Add a record-keeping requirement.

4. 60.482-10 (b) and 61.242-11(b): Include a monitoring method to determine compliance with the 95% control efficiency requirement.

5. 60.482-10 (c) and 61.242-11(c): If the limit used is 95% efficiency, please see the comment above. If the limit used is residence time and temperature, please add continuous gas flow meters and temperature monitor. Please also add these requirements to all equipment subject to this rule.

6. 60.482-10(g) and 61.242-11(f): Add record-keeping.

7. 60.482-4(b) and 6.242-4(b): Add record-keeping.

8. 60.482-8(a) and 61.242-8(a): Add record-keeping.

9. 60.483 and 61.243: Add to monitoring "Notify Administrator of election to comply with 60.483 or 61.243," and record-keeping of percent of valves found leaking during each leak detection period.

10. 61.242-2(g): The limit given is for 61.242-2(h). If the district meant (h) please change monitoring citation to reflect this. If the district meant (g) change monitoring type to measure leaks; visible, auditory, and olfactory inspection; and record-keeping and reporting.

11. 61.242-10(d): Add record-keeping requirement.

12. 61.242-3 and 60.482-3: Please add record-keeping for both regulations. If using a sensor please add a requirement for a sensor to all equipment subject to this regulation.

13. 61.242-4: Add "measure for leaks" (Periodic) to monitoring column.

Miscellaneous

Process Vessel Depressurization, FCCU and H_2 Catalysis

We were unable to review this section of the permit due to time constraints. However, as stated in our general comments, please make all revisions noted in our comments for other facilities that also apply to the Chevron permit.

Fugitive Sources

On page 481, one of the limits says "To be determined upon permit condition revisions" - Please clarify.

WASTEWATER AND PROCESS DRAINS

We were unable to review this section of the permit due to time constraints. However, as noted in our general comments, please make all revisions noted in our comments for other facilities

that are also apply to this permit.

Enclosure D

EPA Comments on Proposed Valero Permit

COGENERATORS

Monitoring

1. Please clarify in the permit that the District assumes 100% conversion of H_2S to SOx emissions (p144; Table IV A22.1 condition 19177) when determining compliance with the SOx limits in the permit.

2. We recommend requiring that Valero test for PM10 and sulfur compounds at maximum H_2S content (p160; Table IV A22.2 condition 19177).

COMBUSTION UNITS

Applicable Requirements

Boilers

Please add the numeric limits of the NSPS for boiler S-237 (p. 124 Table IV-A20). For example, for citations to 60.104(a) please include the concentration (ppm) limit.

Furnaces and Heaters

1. The permit contains a federally-enforceable restriction on the heat input for a number of units (p.473); however the restrictions are marked not federally enforceable in several places (for instance p.68, p.69, p.79, etc). Please change the designations to federally enforceable.

2. The numeric limits and compliance periods for S-3 and S-4 were crossed-off and replaced; please explain the basis for this change.

3. S-42: The permit contains citations to possible exemptions from Reg 9-10 (p109), but does not contain the rule limits nor does it require that the facility meet the emission limits. Please add conditions requiring the source to meet the conditions of the exemption, unless the District 1) requires that the unit meet these emission limits or 2) adds an alternative operating scenario.

COOLING TOWERS

Applicable Requirements

BAAQMD rules 6-301, 6-305, 6-310, and 6-311 were omitted from the table of source-specific applicable requirements for source 29 (Table IV-D1 p182). All of the applicable limits for source 29 and an indication that monitoring is not required should be listed in Table VII-D. These include, but are not limited to, regulations 6-301, 6-305, 6-310, 6-311, and 8-2-301.

Monitoring

Please see our earlier comment (Tesoro Cooling Towers, Monitoring, Comment 1) regarding monitoring the HAP content of these units

ELECTROSTATIC PRECIPITATORS

Monitoring

As discussed in our comments for the Tesoro permit, the District must require periodic monitoring for the ESPs controlling units S-5 and S-6 (the facility appears to have a main stack that is common to units 3,4,5,6,10,13,50 in table II-C).

FCCU

Applicable Requirements

The permit contains a nonapplicability permit shield (Table IX A-2) from 40 CFR Part 60 Subpart J, stating that the Claus sulfur plant has not been modified after October 4, 1976. However, the permit is unclear whether Subpart J applies to the FCCU. The SOx, PM, and opacity standards under Subpart J must be included in the permit for S-5 if these standards apply.

Monitoring

1. Requirements for 1-522.1, 1-522.7, 1-602, and 1-604, under Table IV - A4 for S-5 (fluid catalytic cracking unit and catalyst regenerator), should be federally enforceable because these rules are in the District's SIP.

2. The permit should contain requirements for 6-305 and 6-401 of the District's SIP.

FLARES

Applicable Requirements

1. The other four Bay Area refinery permits have incorporated the District’s new flare

monitoring rule (Rule 12-11), while the Valero permit excludes this rule. We suggest that all five permits include Rule 12-11.

2. The Statement of Basis cites Regulation 6-310 as an applicable requirement for sources 16-19 (page 22). We were not able to find this citation for these flares in the permit. If Regulation 6-310 is missing from the permit, please add it to tables IV and VII of the permit.

Monitoring

As noted in our earlier comments on the Valero asphalt plant, please remove the temperature excursion language (p444, section VI, condition 11882) that allows a temperature deviation of any amount for up to fifteen minutes. We understand that the District is concerned about monitor malfunctions. We recommend deleting this excursion language and instead including provisions for the source to note periods of monitor malfunction. We understand that this unit is an enclosed oxidizer and not an open-air flare.

STORAGE TANKS

Applicable Requirements

1. For sources subject to NSPS Subpart Kb, the frequency specified for inspections of the secondary rim seal is not consistent with the regulations. The permits require inspections for holes or tears of the secondary rim seal at a frequency of once every ten years. However, pursuant to 60.113b(a)(2), the secondary seal should be inspected for holes, tears, or detachment on an annual basis.

2. Several sources are subject to the requirements of Condition #20773. However the District neglected to include this condition in the permit. All relevant parts of this condition should be incorporated into Section VI.

3. The permit contains a discrepancy in the requirements that apply to Cluster 02. Page 161 lists numerous applicable requirements from rule 8-5. However, Table VII.F.1.3 claims an exemption from these requirements on page 446. The information in the permit and statement of basis is not sufficient for EPA to determine the applicability of the rule. The District should review the applicability and make the appropriate corrections to the permit.

Federal Enforceability

It is unclear why conditions 4233, 12580, and 18137 are not federally enforceable in the permit. Permit conditions originating from SIP-approved permits (such as those issued

pursuant to NSR or PSD permit programs) should be identified as federally enforceable.

Monitoring

1. The frequency specified for many tank monitoring requirements in all of the permits is "not specified." In cases where the monitoring frequencies are not specified in the applicable requirements, the District should establish appropriate ones.

2. For the internal floating roof tanks in Cluster 12, the District mistakenly cited the monitoring requirements in Section 8-5-401. The requirements of Section 401 should be changed to those of 402.

3. The inspection requirements for pressure vacuum valves specified in Section 8-5-403 were omitted from the monitoring requirements for numerous tank clusters. This monitoring requirement should be added to the list of requirements for all tanks subject to Section 8-5-303.

SULFUR RECOVERY UNIT

Federal Enforceability

1. The requirements under 9-1-301, -305 and-502 of the District's SIP, if applicable, must be included in the permit for S1 and S2.

2. The requirements for Rule 9-1-313.2 (see requirements for units S1 and S2) should be federally enforceable because it is in the SIP.

3. Please clarify whether rules 9-1-606 and -607 apply to S1 and S2 in order to meet Rule 9-1-313.

Monitoring

The District has proposed deletion of the H_2S monitor installation requirement (Page 422, condition 125, in part V). Instead, please require operation & maintenance of the H_2S monitor.

THROUGHPUT LIMITS ON GRANDFATHERED UNITS

The permit appears to be missing the general discussion that is included for other permits to avoid any misunderstanding that these limits could be relied upon to avoid NSR applicability. Please add this language to the permit to clarify that these limits trigger reporting requirements

and cannot be relied upon to presume that a unit is, or is not, subject to NSR.

VOC FUGITIVES

We were unable to review this section of the permit due to time constraints. However, as noted in our general comments, please make all revisions noted in our comments for other facilities that also apply to the Valero permit. Also, please note that the Statement of Basis states that no monitoring is required for several VOC fugitives requirements (pp24-6) because the units have a control device. Control devices on vent emissions will not assure compliance with limits for fugitive emissions. Please demonstrate the VOC fugitive emissions monitoring is already required or add this monitoring to the permit.

WASTEWATER TREATMENT AND PROCESS DRAINS

Applicable Requirements

1. Table VII - Refinery (p511):
   a. The reporting requirements of 61.357(d)(2), (5), and (7) are listed. Please add 61.357(d)(6) and (8) to these requirements or document why they do not apply. In addition, the permit should indicate that these reports should be submitted to the Administrator.

   b. The monitoring requirement of 61.357(d)(5) applies if the owner/operator elects to comply with 61.342(e). If 61.342(e) is the chosen option, then the applicant should demonstrate that the flow-weighted annual average water content of facility waste is >/= 10%, as described in 61.342(e)(2).

   c. Further, facility waste with less than 10% water content would be subject to 61.342(c)(1). The permit should include these requirements.

2. Table VII - H2.1, Wastewater, and H2.2, Biotreaters: 61.354(b)(2) is listed as the monitoring requirement citation. Please provide the following information:
   a. Does the owner comply with all the requirements of 61.348(b)?

   b. Are these exempt waste management units, and if so, what is the basis for the exemption? - Are these enhanced biodegradation units?

3. Please explain why S-161 (Sewer Pipeline) is not subject to 40 CFR 61 Subpart FF and 40 CFR 63 Subpart CC, and if portions of the pipeline are part of “individual drain systems.”

4. For all CPS units (oil-water separators), a permit condition should be added to Section VI to state the requirement of 61.347(a)(1)(i)(B), that each opening shall be maintained in a closed, sealed position at all times that waste is in the oil-water separator.

5. Please verify that the record-keeping requirements of 61.356 are included in the permit.

6. Please explain why there are no permit conditions or monitoring requirements for the wastewater thickener (S-192), and if it is subject to 40 CFR 61 Subpart FF or 40 CFR 63 Subpart CC.

7. There are monitoring requirements in Table VII - H2.1 and H2.2, but there are no permit conditions for the biotreaters: S-154, S-155, S-169, S-214, S-215, and S-238. Please explain if these are subject to 40 CFR 61 Subpart FF or 40 CFR 63 Subpart CC.

8. Please explain why there are no permit conditions or monitoring requirements for refinery process drains (S-32105), and if they are part of "individual drain systems," which would be subject to 40 CFR 61 Subpart FF.

9. If the facility has slop oil vessels please determine if rules 8-8-305, 8-8-305.1, 8-8-305.2 and NSPS subpart QQQ 60.692(d)-(e) apply.

10. If sludge dewatering occurs please determine if Rule 8-8-304 applies.

Monitoring

1. Table VII - H4.1 and H5.1: For S-188 and S-189, the monitoring requirement of 61.354(f)(1) is to ensure compliance with 61.349(a)(1)(ii)(B). The requirement of a flow indicator contained in 61.349(a)(1)(ii)(A) is not required if the requirement of (B) is met. Therefore, a permit condition should be added to Section VI to state the requirement of 61.349(a)(1)(ii)(B).

2. Table IV, for S-194, S-195, S-197, and S-198 (p. 208 and p. 216), allows a temperature excursion for a period less than or equal to 15 minutes in any hour. See comments for Valero Asphalt.

Miscellaneous

1. Sources A-13 and A-26 are vapor recovery compressor flare gas recovery headers that

control sources 9,133,188,189. For S-189, a source test is required to demonstrate collection/destruction efficiency of >/= 70%.

a. Section VI, Condition 19466, Part 2b (p. 506): The basis for S-189 is listed as Rule 2-6-503. The basis should be changed to Rule 8-8-307.2.

b. The list of equipment under Condition 19466 should include S-189 since Part 2b refers to this emissions unit.